Vol. 28 No. 1

January 1958

JOURNAL OF GENERAL CHEMISTRY OF THE USSR

(ZHURNAL OBSHCHEI KHIMII)

A publication of the Academy of Sciences of the USSR

IN ENGLISH TRANSLATION

Year and issue of first translation:
vol. 19, no. 1 January 1949

	U. S. and Canada	Foreign
Annual subscription	*$90.00*	*$95.00*
Annual subscription for libraries of non-profit academic institutions	*30.00*	*35.00*
Single issue	*10.00*	*10.00*

Copyright 1959

CONSULTANTS BUREAU INC.
227 W. 17th ST., NEW YORK 11, N. Y.

Editorial Board
(ZHURNAL OBSHCHEI KHIMII)

A.E. Arbuzov, E.D. Venus-Danilova, S.N. Danilov (Editor in Chief), A.N. Zakharova (Secretary), E.D. Kaverzneva, M.A. Klochko, K.P. Mishchenko, A.A. Petrov, B.V. Ptitsyn, S.A. Shchukarev, Iu. K. Iur'ev

NOTE: The sale of photostatic copies of any portion of this copyright translation is expressly prohibited by the copyright owners.

Printed in the United States

JOURNAL OF GENERAL CHEMISTRY OF THE USSR

VOLUME 28, NUMBER 1 JANUARY, 1958

CONTENTS

	PAGE	RUSS. PAGE
Tetraacyloxysilanes in Organic Synthesis. XIII. Synthesis of N,N-Diethylamides and N-Arylamides of Acids with the Aid of Silicoanhydrides of Saturated Monobasic Organic Acids. Iu. K. Iur'ev and Z. V. Beliakova	1	3
Catalytic Conversions of Heterocyclic Compounds. LIII. Conversion of Homologs of Oxazole to Homologs of Thiazole. Iu. K. Iur'ev and I. G. Zhukova	5	7
Radical and Ion Alkylation of the Aromatic Ring. VI. Reactions of Diphenylchloromethane with Toluene and Benzene. S. G. Mel'kanovitskaia and I. P. Tsukervanik	10	11
Chlorination of Five- and Six-membered Cyclanes. V. A. Nekrasova, N. I. Shulkin and S. S. Novikov	15	15
Studies in the Field of the Chemistry of 2,1,3-Thiodiazole. VI. Chlorination and Bromination of 4- and 5-Aminobenzo-2,1,3-thiodiazoles. V. G. Pesin and A. M. Khaletskii	20	20
The Chemistry of Processes of Far-Reaching Chlorination of Pentane. L. M. Kogan, N. M. Burmakin and N. V. Cherniak	27	27
The Reaction of Phosphorus Pentachloride with Esters of Oxamic Acid. Amides of Alkoxydichloroacetic Acids. A. V. Kirsanov and V. P. Molosnova	31	30
Diesters of Arylamidophosphoric Acids. A. V. Kirsanov and R. G. Makitra	35	35
Preparation of 2,4-Dinitrophenyl Derivatives of Hydroxy and Mercapto Compounds and Amines. N. N. Vorozhtsov, Jr., and G. G. Iakobson	40	40
Radiochemical Investigation of Reactions of Organometallic Compounds in Benzene Solution. I. A. Korshunov and A. A. Orlova	45	45
Radiochemical Determination of the Number of Carbon Atoms in an Organic Molecule. I. A. Korshunov and N. F. Novotorov	48	47
The Problem of the Dissociation of Arylcarbinols and Some Other Compounds in Nitrobenzene. I. E. I. Kviat and O. F. Ginzburg	52	51
Investigations of Cyclic Arylazo-β-diketones. I. Condensation of 1,3-Indandiol with Diazo Compounds. Z. Iu. Gudrinietse and G. Ia. Vanag	59	58
Investigations on Imidazole Derivatives. XVIII. The Problem of the Nitration of 5-Methylbenzimidazole. L. S. Efros and A. V. El'tsov	64	62
The Condensation of Methyl Esters of α-Amino-β-mercaptocarboxylic Acids with Bromopyruvic Acid. I. T. Strukov	71	69

CONTENTS (continued)

	PAGE	RUSS. PAGE
Investigations on Conjugated Systems. LXXXII. Infrared Spectra of Vinylacetylenic and Dienic Ethers. A. A. Petrov and G. I. Semenov	73	71
Investigations on Quinones. XX. Preparation of Naphthoquinones and Dihydroanthraquinones. A. N. Grinev and A. P. Terent'ev	77	75
Investigations on Quinones. XXI. The Structure of Substances Prepared by Condensation of Toluquinone and α-Naphthoquinone with Ethyl Acetoacetate. A. N. Grinev and A. P. Terent'ev	80	78
The Mechanism of the Dehydration of γ-Glycols. V. Study of the Properties and Transformations of the Acetylenic γ-Glycol 3-Methyl-1-hexyn-3,6-diol. T. A. Favorskaia and O. V. Sergievskaia	88	87
Sulfonation of β-Diketones with Dioxane Sulfotrioxide. II. Indandione-1,3-sulfonic-2 Acid and Its Salts. E. Iu. Gudrinietse, A. F. Ievin'sh and G. Ia. Vanag	95	95
Reaction of Hydrogen Peroxide with Allyl Alcohol and Acrolein in the Presence of Tungstic Acid. P. G. Sergeev and L. M. Bukreeva	101	101
Synthesis of Quinuclidine-3-Acetic Acid. E. E. Mikhlina and M. V. Rubtsov	104	103
Hydrogenation in the Presence of Colloidal Palladium. IX. Hydrogenation of Vinylpropyl- and Vinylbutylacetylenes. Kh. V. Bal'ian, Z. A. Lerman and L. A. Merkur'eva	110	110
Synthesis of 6-Methyloctene-1-yne-4-diol-3,6 and 7-Methyloctene-2-yne-5-diol-4,7 and Their Catalytic Hydrogenation. A. I. Nogaideli, K. Ia. Dzagnidze and R. Papava	116	116
Investigation of Lignin in Husks of Cotton Seeds. A. F. Semechkina and N. N. Shorygina	119	119
Synthetic Anesthetics. XXII. Phenoxyacetates of 1-Phenyl-3-dimethylaminopro-an-1-pan-1-ols. I. N. Nazarov and E. M. Cherkasova	122	122
Synthetic Anesthetics. XXIII. Phenoxyacetates of 1-Phenyl-2-methyl-3-dialkylaminopropan-1-ols. I. N. Nazarov, E. M. Cherkasova and Ch'ang Ch'ung Kwang	127	126
Oxidation of Organic Compounds. XV. Vapor Phase Oxidation of Ethylbenzene on Tin Vanadate. A. V. Solomin, B. V. Suvorov and S. R. Rafikov	134	133
Synthesis, Properties and Polymerization of α-Chloroacrylamide. S. S. Ivanov and M. M. Koton	139	139
A Study of the Chemical Structure of the Spongy Divinyl Polymer. II. A. I. Iakubchik, A. I. Spasskova and V. A. Tsitokhtsev	143	143
Condensation of ω-Bromoacetophenone with Diethanolamine. B. M. Mikhailov and A. N. Makarova	149	150
Organic Insectofungicides. XXVIII. The Synthesis of Some Esters of Bicyclo-(2,2,1)-heptenyl-5-carbinol-2. S. S. Kukalenko and N. N. Mel'nikov	153	154
Organic Insectofungicides. XXIX. The Reaction of Hexachlorocyclopentadiene with Some Unsaturated Compounds. S. S. Kukalenko and N. N. Mel'nikov	157	157

CONTENTS (continued)

	PAGE	RUSS. PAGE
Tertiary Amines of Some Heterocyclics as Possible Hypotension Remedies. E. S. Nikitskaia, V. S. Usovskaia and M. V. Rubtsov	161	161
Synthesis of Racemic Methyl Ether of O,O-Dibenzylmagnoline. I. N. Gorbacheva, L. P. Varnakova, E. M. Kleiner, I. I. Chernova and N. A. Preobrazhenskii	167	167
Diene Hydrocarbons from Unsaturated Alcohols. I. Catalytic Dehydration of Crotyl Alcohol to Butadiene. Iu. A. Gorin, V. S. Ivanov, E. S. Bogdanova and E. A. Piaivinen	170	169
Reaction of Alkylene Sulfides with Halides of Carboxylic Acids. S. Z. Ivin	177	177
Reaction of Halides of Carboxylic Acids with Aliphatic α-Oxides. S. Z. Ivin	181	180
Sulfonation Reaction. XLVI. Equilibrium Between Toluenetrisulfonic Acid and Its Trichloride. A. A. Spryskov and Iu. L. Kuz'mina	185	184
Reaction of Some Organosilicon Compounds with Cellulose Nitrates. A. P. Kreshkov, I. Ia. Guretskii and P. A. Andreev	188	187
Derivatives of Alkylphosphonous and Phosphonic Acids. VIII. Synthesis and Properties of Some Alkylated Amides of Alkylphosphonic Chlorides. A. I. Razumov, O. A. Mukhacheva and E. A. Markovich	194	194
Some Aryl Derivatives of Cyanothiourea. V. L. Nirenburg, I. Ia. Postovskii and V. M. Cherkasov	198	198
Mechanism of the Reaction of Transamination in the β-Dialkylaminopropionitrile Series. A. F. Bekhli	204	204
On the Products of Reaction Between Methylene Bases of Benzothiazole and Benzselenazole and Alkyl Halides. F. S. Babichev and A. I. Kiprianov	209	209
Synthesis of Aliphatic Amino Acids from Thiophene Derivatives. II. Synthesis of β-Amino Acids. Ia. L. Gol'dfarb, B. P. Fabrichnyi and I. F. Shalavina	213	213
Synthesis of Pyrrolidine Bases from γ-Ketoalcohols. A. P. Terent'ev, M. A. Volodina and V. G. Mishina	222	223
Haloarylation of Unsaturated Compounds by Aromatic Diazo Compounds. X. Synthesis of DL-Phenylalanine and Its Homologs. A. M. Iurkevich, A. V. Dombrovskii, and A. P. Terent'ev	226	227
Substances Capable of Forming Complexes. I. Synthesis and Structure of "Complexon -IV" - 1,2-Diaminocyclohexane-N,N,N',N'-tetraacetic Acid. V. G. Iashunskii and M. N. Shchukina	230	230
Methyl Linoleate Monoxide and Its Properties. G. V. Pigulevskii and I. N. Naidenova	234	234
Investigation of Aromatic Compounds with a Long Side Chain. II. Preparation of Dodecylaniline by Ammonolysis of p-Chlorododecylbenzene. L. N. Nikolenko and K. K. Babievskii	238	238
β-Acyloxyacroleins. T. V. Protopopova and A. P. Skoldinov	241	240
Auto-oxidation of a Methylene Group Bound to an Aromatic Nucleus. II. Auto-oxidation of the Methyl Ester of 9-Phenylundecanoic Acid. P. G. Sergeev and A. M. Sladkov.	244	244

CONTENTS (continued)

	PAGE	RUSS. PAGE
Analogs of Steroid Hormones. I. Preparation of 3-(4-Oxocyclohexyl)-2-methylcyclopentanol. V. I. Maksimov and Z. A. Priakhina	247	246
Analogs of Steroid Hormones. II. Synthesis of 6-(2-Methyl-3-hydroxypentyl)-$\Delta^{1(9)}$-2-octalone. V. I. Maksimov and Z. A. Priakhina	253	253
Alkaloids of Salsola Richteri. VI. Structure of Salsamine. N. F. Proskurnina	257	256
Aconite Alkaloids. IX. Alkaloids of Aconitum Excelsum. T. F. Platonova, A. D. Kuzovkov and P. S. Massagetov	259	258
Electrolytic Reduction of 2,4-Diamino-5-isonitroso-6-hydroxypyrimidine. V. M. Berezovskii and Iu. P. Sobolev	262	261
Determination of the Number of Electrons Participating in the Process for the Reduction of Stypticine at a Dropping Mercury Electrode. II. N. Ia. Khlopin and G. F. Reikhardt	266	264
The Preparation and Certain Properties of Silicon Nitride. V. F. Funke and G. V. Samsonov	269	267
The Electrolytic Reduction of Thorium Tetrachloride in Salt Melts. L. D. Iushina	274	272
Electrolytic Dissociation in Nonaqueous Systems. VI. System Allyl Mustard Oil—o-Toluidine. S. P. Miskidzh'ian	278	276
Letter to the Editor		
Enthalpy of Formation of Nickel Carbonyl. B. F. Ormont and E. I. Smagina	281	279